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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,684	01/23/2004	Jawed Sarkar	7673-P2	9467

7590 08/23/2005

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EXAMINER	
HRUSKOCI, PETER A	

ART UNIT	PAPER NUMBER
1724	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/764,684	SARKAR ET AL.	
	Examiner	Art Unit	
	Peter A. Hruskoci	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0291665 Rohm. Rohm disclose (see pages 2-8 of translation) a method of clarifying and dewatering a wastewater including sludge substantially as claimed. The claims differ from Rohm as applied above by reciting that the wastewater is an industrial wastewater, industrial sludge, or a specific aerobic digestion sludge. It is submitted that the sludge clarified and dewatered in Rohm is considered patentably indistinguishable from the wastewater and sludges recited in the instant claims. It would have been obvious to one skilled in the art to utilize the method of Rohm to treat the recited wastewater and sludges, to aid in separating solids from the wastewater and dewatering the sludges.

Claims 5-11 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0291665 Rohm as above, and further in view of Schulein et al. 6,001,639. The claims differ from Rohm as applied above by reciting that the enzymes comprise a specific mixture or preparation including endoglucanase. Schulein et al. disclose (see col. 1 lines 20-52, and col. 41 line 63 through col. 42 line 9) that it is known in the art to utilize enzyme preparation including endoglucanase activity to improve degradability in waste water plants. It would have been obvious to one skilled in the art to modify the method of Rohm by utilizing the recited mixture and preparation in view of the teachings of Schulein et al., to aid in degrading cellulose in the wastewater dewatering the sludges. The specific mixtures and preparations utilized would have

been an obvious matter of process optimization to one skilled in the art, depending on the specific wastewater treated and results desired, absent a sufficient showing of unexpected results.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0291665 Rohm as above, and further in view of Huhtamaki et al. 5,827,432. The claim differ from Rohm as applied above by reciting that the addition of a coagulant to the wastewater. Huhtamaki et al. disclose (see col. 5 line 29 through col. 7 line 12) that it is known in the art to add a coagulant to aid in separating solid matter from a sludge. It would have been obvious to one skilled in the art to modify the method of Rohm by addition of a coagulant in view of the teachings of Huhtamaki et al., to aid in separating solids from the wastewater.

Claims 13, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0291665 Rohm and Schulein et al. as above, and further in view of Huhtamaki et al. 5,827,432. The claim differ from the references as applied above by reciting that the addition of a coagulant to the wastewater. Huhtamaki et al. disclose (see col. 5 line 29 through col. 7 line 12) that it is known in the art to add a coagulant to aid in separating solid matter from a sludge. It would have been obvious to one skilled in the art to modify the references as applied above by addition of a coagulant in view of the teachings of Huhtamaki et al., to aid in separating solids from the wastewater.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarker et al. 6,733,673 or 6,733,674. Sarker et al. (673) (see col. 1 line 5 through col. 3 line 15) and (674) (see col. 1 line 10 through col. 4 line 32) a method of dewatering a sludge substantially as claimed. The claims differ from Sarker et al. (673) or (674) by reciting that the method includes clarifying industrial wastewater. It is submitted that the industrial sludge dewatered in Sarker et

al. (673) or (674) includes wastewater which appears to be clarified with the dewatering devices utilized to separated coagulated and flocculated solids or sludge from the water. It would have been obvious to one skilled in the art to modify the method of Sarker et al. (673) or (674), by separating the coagulated and flocculated solids from the water present in the sludge, to produce clarified wastewater.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,733,673 or claims 1-11 of U.S. Patent 6,733,674. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims appear to be fully encompassed in the claims of the patents, respectively. It is submitted that the wastewater or sludge, and clarifying of wastewater as recited in the instant claims appears to be included in the claims of the patents.

Applicants allege that the industrial wastewater and sludges as recited in the instant are considerable different from the biologically clarified sludges described by Rohm. It is submitted that the activated sludge recited in claim 3 would appear to be produced by a aerobic biological digestion step followed by a clarification step, and is considered patentably indistinguishable from the sludge of Rohm. It is noted that the instant claims fail to recite a specific content of inorganic solids or an organic loading. Furthermore, applicants have not supplied sufficient factual evidence to support the above allegation.

Applicants argue that the ATAD sludges recited in claim 4 represent a new and fundamentally different class of sludge which includes specific biopolymers produced using thermophilic bacteria , and Rohm does not teach that enzyme treatments would be efficacious for treating these sludges. It is submitted that this sludge does not appear to be excluded from the teachings of Rohm. It is noted that the presence of thermophilic bacteria and biopolymers is not recited in the instant claim. Furthermore, applicants have not supplied sufficient comparative evidence with Rohm to support the above argument.

Applicants argue that Schulein does not suggest that endoglucanase would have any utility for clarification and dewatering of wastewater and sludges as in the instant method. It is submitted that Schulein discloses in col. 41 line 63 through col. 42 line 11 that endoglucanase improves the degradability is wastewater plants. It is submitted that the combined teachings of Rohm and Schulein as applied above would suggest utility, to one skilled in the art having the references before him, for endoglucanase in the clarification and dewatering of wastewater and sludges as in the instant method.

Applicants arguments concerning Huhtamaki are based on the propriety of Rohm and Schulein as combined above. It is submitted that these combinations are deemed properly applied for reasons stated above.

Applicants argue that Sarker 673 and 674 require the use of oxidants to activate the enzymes and which is not required by the instant method. It is submitted that the addition of oxidants is not excluded from the instant claims. Furthermore, it is noted that the instant application fails to include evidence that the instant invention and the inventions of Sarker were commonly owned at the time the instant invention was made.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter A. Hruskoci whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter A. Hruskoci
Primary Examiner
Art Unit 1724

8/20/05